

Abstract

Optical wireless links communicate beam alignment information between them over a collimated, modulated light beam, without the requirement of a secondary channel. The alignment feedback signal can be formatted as control packets that are inserted between data packets traveling over the optical wireless channel, as control packets that are combined with the data packets, as a low frequency modulation of the light beam, or similar approaches. Alignment feedback signals are used by the device receiving the signal to align its light beam using a beam steering device, such as a micro-mirror device. Control signals preferably include x and y coordinate information relating to the position of both devices that are communicating, as well as time stamp, sample number, and similar synchronization information. Control packets are extracted from the data stream by a switch based upon the destination address of the control packets.